HEPATITIS C
September 2004

1: AIDS Policy Law. 2004 Jul 2;19(12):1.
Contamination. Company to issue global dialysis alert.
[No authors listed]
Publication Types:
Newspaper Article
PMID: 15282849 [PubMed - indexed for MEDLINE]

2: AIDS Read. 2004 Jul;14(7):392.
Comment on:
AIDS Read. 2004 Jul;14(7):389-94.
Editorial comment: triple infection with HIV and hepatitis B and C viruses--lesson in combination therapy.
Dore GJ.
Publication Types:
Comment
Editorial
PMID: 15282869 [PubMed - indexed for MEDLINE]

3: AIDS Read. 2004 Jul;14(7):389-94.
Comment in:
AIDS Read. 2004 Jul;14(7):392.
Tri-infection: successful treatment of a patient infected with HIV and hepatitis B and C viruses--a case report.
Johanson F.
Central Florida Reception Center, Florida Department of Corrections, Orlando, Florida, USA.
There is a growing abundance of literature on persons with HIV/AIDS who are coinfected with either hepatitis B or C virus. However, there is little published information on HIV-infected persons coinfected with both hepatitis B and C virus. This Case Report describes a patient with HIV infection and hepatitis B and C with biopsy-proven cirrhosis. The patient was successfully
treated, achieving a sustained virologic response with respect to hepatitis C and seroconversion with respect to hepatitis B.
Publication Types:
Case Reports
PMID: 15282868 [PubMed - indexed for MEDLINE]

4: AIDS Res Hum Retroviruses. 2004 Jul;20(7):716-22.
The relationship between nevirapine plasma concentrations and abnormal liver function tests.

Almond LM, Boffito M, Hoggard PG, Bonora S, Raiteri R, Reynolds HE, Garazzino S, Sinicco A, Khoo SH, Back DJ, Di Perri G.
Department of Pharmacology and Therapeutics, University of Liverpool, Liverpool, UK. lisaa@liv.ac.uk
Abnormal liver function tests are frequently observed in HIV-infected individuals receiving nevirapine (NVP). Here we investigate the relationship between total and unbound plasma concentrations of NVP and the liver enzymes alanine aminotransferase (ALT) and gamma-glutamyl transferase (gammaGT). HIV-infected individuals [n = 85, 22 female, 34 hepatitis C or B virus (HCV or HBV(+))] receiving NVP (200 mg bd; median duration 66 weeks, range 3-189) and two nucleoside reverse transcriptase inhibitors (NRTIs) were enrolled into this study. Blood samples were taken at C(trough) (12 hr postdose) for measurement of NVP and liver function tests (ALT and gammaGT). Plasma protein bound and unbound drug was separated using ultrafiltration and NVP concentrations quantified using HPLC-MS/MS. A linear relationship was observed between total and unbound NVP C(trough) ($r(2) = 0.77$, $p < 0.0001$). Patients with elevated ALT (>37 IU/liter; n = 31) had higher NVP unbound C(trough) than those with ALT within the normal range (median 2268 vs. 1694 ng/ml, $p = 0.04$) but there was no difference in total C(trough). Logistic regression revealed no association between higher NVP C(trough) and ALT elevations. Significantly higher NVP total and unbound C(trough) were observed in patients with increased gammaGT (>40 IU/liter; n = 63; total 6747 vs. 4530 ng/ml, $p = 0.001$; unbound 2113 vs. 1557 ng/ml, $p = 0.03$). Significantly higher unbound NVP C(trough) was observed in HCV/HBV(+) (median 2275 vs. 1726 ng/ml, $p = 0.02$) and on bivariate analysis, higher NVP C(trough) was associated with HCV/HBV coinfection ($chi(2) = 4.228$; $p = 0.04$). Overall we found no strong association between NVP concentrations and hepatotoxicity. Although in this study NVP was well tolerated in HCV/HBV coinfected patients, higher plasma concentrations were observed.
PMID: 15307917 [PubMed - indexed for MEDLINE]

5: AIDS Res Hum Retroviruses. 2004 Jul;20(7):698-700.
Short communication: liver toxicity of lopinavir-containing regimens in HIV-infected patients with or without hepatitis C coinfection.
Gonzalez-Requena D, Nunez M, Jimenez-Nacher I, Gonzalez-Lahoz J, Soriano V.
Service of Infectious Diseases and Pharmacy Unit, Hospital Carlos III, 28035 Madrid, Spain.
Liver toxicity is a common side effect of antiretroviral therapy, particularly in subjects coinfected with the hepatitis C virus (HCV). The incidence of severe liver toxicity after initiation of treatment with lopinavir (LPV) as well as its possible association with LPV plasma levels were assessed in 120 HIV-infected patients (52% coinfected by HCV). The incidence of severe liver toxicity at 3 months was 1.7% and the cumulative incidence at 12 months was 4%. The development of severe liver toxicity was associated with HCV coinfection but not with LPV plasma levels.
PMID: 15307912 [PubMed - indexed for MEDLINE]

6: Am J Gastroenterol. 2004 Jul;99(7):1298-305.
Efficacy and safety of two-dose regimens of peginterferon alpha-2a compared with interferon alpha-2a in chronic hepatitis C: a multicenter, randomized controlled trial.
Pockros PJ, Carithers R, Desmond P, Dhumeaux D, Fried MW, Marcellin P, Shiffman ML, Minuk G, Reddy KR, Reindollar RW, Lin A, Brunda MJ; PEGASYS International Study Group.
Division of Gastroenterology/Hepatology, Scripps Clinic, La Jolla, California 92037, USA.
OBJECTIVES: This study compared the efficacy and safety of peginterferon alpha-2a 135 microg/wk, peginterferon alpha-2a 180 microg/wk and interferon alpha-2a in

patients with chronic hepatitis C. METHODS: A total of 639 patients received peginterferon alpha-2a 135 microg or 180 microg once weekly, or interferon alpha-2a 3 MIU thrice weekly for 48 wk. RESULTS: Sustained virological responses were significantly higher with peginterferon alpha-2a than with interferon alpha-2a 3 MIU (28% in the 135 microg and 180 microg peginterferon alpha-2a groups vs 11% with interferon alpha-2a, p = 0.001). The proportion of patients with clinically significant histological improvement was lower in the peginterferon alpha-2a 135 microg (48%) than the 180 microg group (58%, p = 0.035 vs peginterferon alpha-2a 135 microg), but similar to that in the interferon alpha-2a group (45%, p = 0.820 vs peginterferon alpha-2a 135 microg and p = 0.017 vs peginterferon alpha-2a 180 microg, respectively). The
overall safety profiles were similar for the three treatments. In patients with chronic hepatitis C, peginterferon alpha-2a 135 microg/wk and 180 microg/wk produced similar sustained virological response rates, both of which were significantly higher than that achieved with interferon alpha-2a thrice weekly. A significantly higher proportion of patients treated with the 180 microg dose
of peginterferon alpha-2a had clinically significant histological improvement.
Publication Types:
Clinical Trial
Multicenter Study
Randomized Controlled Trial
PMID: 15233669 [PubMed - indexed for MEDLINE]

7: Am J Med. 2004 Aug 1;117(3):163-8.
Differences in treatment outcome for hepatitis C among ethnic groups.
Hepburn MJ, Hepburn LM, Cantu NS, Lapeer MG, Lawitz EJ.
Department of Medicine, Brooke Army Medical Center, Fort Sam, Houston, Texas, USA. matthew.hepburn@amedd.army.mil
BACKGROUND: Studies of interferon-based therapies for hepatitis C virus (HCV)-infected patients have documented variable response rates according to ethnicity. However, these studies enrolled low numbers of ethnic minorities. METHODS: Data from two multicenter trials of combination therapy for hepatitis C were analyzed to determine predictors of treatment success. The first trial was a randomized study comparing interferon administered three times weekly with daily administration. Patients in both interferon groups received weight-based
ribavirin. The second trial was an observational study of daily interferon and ribavirin. Only treatment-naive patients were included in the analysis. Ethnicity (used as a nonspecific term to include race) was determined by patient self-report. Sustained virologic response was defined as negative HCV RNA by polymerase chain reaction at 24 weeks after completion of therapy. RESULTS: A total of 661 patients (390 from the randomized trial and 271 from the observational trial) were available for analysis. Sustained virologic response was highest among Asians (61% [22/36]), followed by whites (39% [193/496]), Hispanics (23% [18/79]), and African Americans (14% [7/50]). In a multiple logistic regression model that adjusted for other factors known to affect treatment outcome, including hepatitis C genotype, Asians continued to be more likely to respond to treatment, whereas Hispanics and African Americans were less likely, as compared with whites. CONCLUSION: Sustained response rates to interferon and ribavirin therapy differ among ethnic groups. Ethnicity appears to be associated with treatment outcomes, even in a model that adjusts for other factors that influence response to therapy.
Publication Types:
Clinical Trial
Multicenter Study
Randomized Controlled Trial
PMID: 15276594 [PubMed - indexed for MEDLINE]

8: Am J Med Sci. 2004 Jul;328(1):26-36.
Management of the coinfected patient: human immunodeficiency virus/hepatitis B and human immunodeficiency virus/hepatitis C.
Murphy MJ, Wilcox RD.
Louisiana State University School of Medicine, New Orleans, USA.
mmurph1@lsuhsc.edu
Deaths from liver disease have increased in persons infected with human immunodeficiency virus (HIV) because of coinfection with chronic hepatitis B and C; consequently, all HIV-infected patients should be screened for hepatitis B and C, and all those susceptible should be vaccinated for hepatitis B. Hepatitis A vaccination is indicated for susceptible coinfected patients. It is also important to stress other means of preventing the transmission of hepatitis,
such as safe sex and avoidance of blood exposures. Three oral agents, lamivudine, adefovir, and tenofovir, are active against hepatitis B infection. The need for highly active antiretroviral therapy and hepatitis B therapy should be addressed in a coordinated fashion, since two of these agents are active against both HIV and hepatitis B virus. Oral combination therapy for hepatitis B infection looks promising but needs further study. Combination therapy for
chronic hepatitis C with pegylated interferon plus ribavirin is the most effective available therapy and the current standard of care. Prior to therapy, patients should be evaluated for contraindications to therapy. During treatment, they should be closely monitored for adverse events.
PMID: 15254439 [PubMed - indexed for MEDLINE]

9: Am J Public Health. 2004 Jul;94(7):1224-9.
Geographic location of commercial plasma donation clinics in the United States, 1980-1995.
James RC, Mustard CA.
Department of Community Health Sciences, University of Manitoba Faculty of Medicine, Winnipeg, Canada.
OBJECTIVE: We examined the location of commercial plasma donation centers in the United States over the period 1980 to 1995 relative to the geographic distribution of risk behaviors associated with transfusion-transmissible infections. METHODS: The census tract locations of commercial source plasma clinics were described by measures of neighborhood social disadvantage and the prevalence of illicit drug use and active local drug economies. RESULTS: Depending on the measure of social environment used, commercial plasma clinics
were 5 to 8 times more likely to be located in census tracts designated high-risk than would be expected by chance. CONCLUSIONS: Commercial source plasma clinics were overrepresented in neighborhoods with very active local drug economies. These patterns persisted after the links between human immunodeficiency virus and hepatitis C virus infections and plasma products had been established and may present risks to blood system safety.
PMID: 15226147 [PubMed - indexed for MEDLINE]

10: Am J Public Health. 2004 Jul;94(7):1218-23.
Prevalence and incidence of HIV, hepatitis B virus, and hepatitis C virus infections among males in Rhode Island prisons.
Macalino GE, Vlahov D, Sanford-Colby S, Patel S, Sabin K, Salas C, Rich JD.
Brown University Medical School, Providence, RI 02912, USA.
grace_macalino@brown.edu
OBJECTIVES: We evaluated prevalence and intraprison incidence of HIV, hepatitis B virus, and hepatitis C virus infections among male prison inmates. METHODS: We observed intake prevalence for 4269 sentenced inmates at the Rhode Island Adult Correctional Institute between 1998 and 2000 and incidence among 446 continuously incarcerated inmates (incarcerated for 12 months or more). RESULTS:

HIV, hepatitis B virus, and hepatitis C virus prevalences were 1.8%, 20.2%, and 23.1%, respectively. Infections were significantly associated with injection drug use (odds ratio = 10.1, 7.9, and 32.4). Incidence per 100 person-years was 0 for HIV, 2.7 for HBV, and 0.4 for HCV. CONCLUSIONS: High infection prevalence among inmates represents a significant community health issue. General disease prevention efforts must include prevention within correctional facilities. The high observed intraprison incidence of HBV underscores the need to vaccinate prison populations.
PMID: 15226146 [PubMed - indexed for MEDLINE]

11: Am J Public Health. 2004 Jul;94(7):1147-51.
Medically eligible women who do not use HAART: the importance of abuse, drug use, and race.
Cohen MH, Cook JA, Grey D, Young M, Hanau LH, Tien P, Levine AM, Wilson TE.
CORE Center, Cook County Hospital, Cook County Bureau of Health Services, Chicago, Ill., USA. mcohen@corecenter.org
OBJECTIVES: We investigated the prevalence and characteristics of HIV-positive women who do not report highly active antiretroviral therapy (HAART) use. METHODS: We analyzed HAART use among 1165 HIV-positive participants in the Women's Interagency HIV Study. RESULTS: Between October 1, 2000, and March 31, 2001, 254 women with clinical indications for HAART reported not using it, 635 reported HAART use, and 276 had no clinical indications. In multivariate analysis, using crack/cocaine/heroin and a history of abuse decreased the likelihood of using HAART, whereas being White increased it. CONCLUSIONS: One of 4 women for whom HAART was indicated reported not using HAART. Childhood sexual abuse prevention, more intensive abuse treatment, and continuing drug treatment may enhance HIV disease treatment of women.
PMID: 15226135 [PubMed - indexed for MEDLINE]

12: Ann Intern Med. 2004 Jul 6;141(1):77; author reply 77-8.
Comment on:
Ann Intern Med. 2003 Nov 18;139(10):817-23.
Prevention of hepatocellular carcinoma.
Stark JJ.
Publication Types:
Comment
Letter
PMID: 15238378 [PubMed - indexed for MEDLINE]

13: Antiviral Res. 2004 Jul;63(1):25-32.
A prospective study on treatment of chronic hepatitis C with tailored and extended interferon-alpha regimens according to pretreatment virological factors.
Yu ML, Dai CY, Chen SC, Lee LP, Huang JF, Lin ZY, Hsieh MY, Wang LY, Chuang WL, Chang WY.
Hepatobiliary Division, Department of Internal Medicine, Kaohsiung Medical University, No. 100 Shih-Chuan 1st Road, Kaohsiung 807, Taiwan, ROC.
Hepatitis C virus genotype and viral loads are important predictors for sustained virologic response (SVR) to interferon-alpha therapy for chronic hepatitis C (CHC). We have conducted a prospective study on treatment of 90 patients with a tailored-dose and extended interferon-alpha regimen according to pretreatment virologic factors (low-risk, genotype non-1b/viral < or =0.65
Meq./ml, 6 million units thrice weekly for 12 weeks (6 MU x 12 weeks) followed by 3 MU weeks; high-risk, genotype 1b/viral >0.65 Meq./ml, 6 MU X 24 weeks followed by 3 MU X 24 weeks; medium-risk, the others, 6 MU X 12 weeks followed by 3 MU X 36 weeks), and compared to 123 patients with fixed-dose regimen (6 MU X 24 weeks). Patients with tailored-dose regimen had a significantly higher rate of SVR

than those receiving fixed-dose interferon-alpha (46.7% versus 29.3%, P <0.01, intention-to-treat analysis). Improved efficacy was mainly seen in the medium-risk (48.9% versus 26.6%, P=0.02) and the high-risk groups (26.1% versus 8.3%, P=0.06), but not in the low-risk group. By using multivariate logistic regression, low pretreatment viral loads and tailored-dose IFN regimens were significantly associated with higher SVR in both the high- and medium-risk groups. There were no differences in the tolerability and in the incidence of adverse effects between fixed-dose and tailored-dose groups. In conclusion, our results demonstrate the efficacy of tailored-dose interferon-alpha therapy for CHC; these could provide decision-making information for standard/pegylated interferon-alpha combining ribavirin therapy according to baseline predictors.
PMID: 15196817 [PubMed - indexed for MEDLINE]

14: Blood. 2004 Jul 15;104(2):478-86. Epub 2004 Mar 25.
Peripheral CD4(+)CD8(+) T cells are differentiated effector memory cells with antiviral functions.
Nascimbeni M, Shin EC, Chiriboga L, Kleiner DE, Rehermann B.
Liver Diseases Section, DDB, NIDDK, National Institutes of Health, DHHS 10 Center Drive, Bldg 10, Room 9B16, Bethesda, MD 20892-1800, USA.
Although an increased frequency of CD4(+)CD8(+) T cells has been observed in the peripheral blood during viral infections, their role, function, and biologic significance are still poorly understood. Here we demonstrate that the circulating CD4(+)CD8(+) T-cell population contains mature effector memory lymphocytes specific for antigens of multiple past, latent, and high-level persistent viral infections. Upon in vitro antigenic challenge, a higher frequency of D4(+)CD8(+) than single-positive cells displayed a T helper 1/T cytotoxic 1 (Th1/Tc1) cytokine profile and proliferated. Ex vivo, more double-positive than single-positive cells exhibited a differentiated phenotype. Accordingly, their lower T-cell receptor excision circles (TREC) content and shorter telomeres proved they had divided more frequently than single-positive cells. Consistent with expression of the tissue-homing marker CXCR3, CD4(+)CD8(+) T cells were demonstrated in situ at the site of persistent viral infection (ie, in the liver during chronic hepatitis C). Finally, a prospective analysis of hepatitis C virus (HCV) infection in a chimpanzee, the only animal model for HCV infection, showed a close correlation between the frequency of activated CD4(+)CD8(+) T cells and viral kinetics. Collectively, these findings demonstrate that peripheral CD4(+)CD8(+) T cells take part in the adaptive immune response against infectious pathogens and broaden the perception of the T-cell populations involved in antiviral immune responses.
PMID: 15044252 [PubMed - indexed for MEDLINE]

15: Br J Haematol. 2004 Jul;126(2):163.
Iliac giant pseudotumour in a haemophiliac patient.
Santoro R, Iannaccaro P, Sottilotta G, Arcuri PP.
Haemophilia Centre, Haemostasis and Thrombosis Unit, Department of Haematology, Azienda Ospedaliera Pugliese-Ciaccio, Cantanzaro, Italy. ritasant@interfree.it
Publication Types:
Case Reports
PMID: 15238135 [PubMed - indexed for MEDLINE]

16: Can Commun Dis Rep. 2004 Jul 15;30(14):125-32.
Sex differences in injecting practices and hepatitis C: a systematic review of the literature.
[Article in English, French]
Roman-Crossland R, Forrester L, Zaniewski G.
University of Guelph.

Publication Types:
Review
Review, Academic
PMID: 15279499 [PubMed - indexed for MEDLINE]

17: Cancer Sci. 2004 Jul;95(7):592-5.
Hepatitis C virus infection as a likely etiology of intrahepatic cholangiocarcinoma.
Yamamoto S, Kubo S, Hai S, Uenishi T, Yamamoto T, Shuto T, Takemura S, Tanaka H,
Yamazaki O, Hirohashi K, Tanaka T.
Department of Gastroenterological and Hepato-Biliary-Pancreatic Surgery and Public Health, Osaka City University Graduate School of Medicine, Abeno-ku, Osaka 545-8585, Japan. m7577175@msic.med.osaka-cu.ac.jp
Although hepatitis C virus (HCV)-related cirrhosis has been suggested as a risk factor for intrahepatic cholangiocarcinoma (ICC), few sizeable studies have tested this hypothesis. We investigated ICC risk factors, with special reference to HCV infection. We conducted a hospital-based case-control study including 50 ICC patients and 205 other surgical patients without primary liver cancer. HCV seropositivity was detected in 36% of ICC patients and 3% of controls. By univariate analysis, the odds ratio (OR) for association of anti-HCV antibodies
with development was 16.87 (95% confidence interval (CI), 5.69 to 50.00). History of blood transfusion or diabetes mellitus, elevated serum total bilirubin, elevated aspartate aminotransferase and alanine aminotransferase, decreased serum albumin and decreased platelet count were identified as other possible ICC risk factors. By multivariate analysis, anti-HCV antibodies (adjusted OR, 6.02; 95% CI, 1.51 to 24.1), elevated alanine aminotransferase,
decreased serum albumin, and decreased platelet count were found to be independent risk factors for ICC development. As liver status worsened, the adjusted OR for ICC tended to increase. HCV infection is a likely etiology of ICC in Japan.
PMID: 15245596 [PubMed - indexed for MEDLINE]

18: Clin Chem. 2004 Aug;50(8):1344-55. Epub 2004 Jun 10.
Comment in:
Clin Chem. 2004 Aug;50(8):1299-300.
Prospective analysis of discordant results between biochemical markers and biopsy in patients with chronic hepatitis C.
Poynard T, Munteanu M, Imbert-Bismut F, Charlotte F, Thabut D, Le Calvez S, Messous D, Thibault V, Benhamou Y, Moussalli J, Ratziu V.
Service d'Hepato-Gastroenterologie, Groupe Hospitalier Pitie-Salpetriere, Universite Paris VI, Paris, France. tpoynard@teaser.fr
BACKGROUND: The FibroTest and ActiTest are noninvasive biochemical markers of liver injury that are intended for use as alternatives to liver biopsy in patients with chronic hepatitis C. The aims of this study were to assess the quality of biopsy and the prevalence of discordances between biopsy and markers, to identify factors associated with discordances, and to attribute these discordances to either markers or biopsy failure. METHODS: Fibrosis stage and activity grade were prospectively assessed on the same day by a liver biopsy and by markers. On the basis of risk factors for failure and independent endpoints, discordance was classified as being attributable to biopsy or to markers. RESULTS: Only 74 of 537 patients (14%) had a biopsy size > or =25 mm. Discordance was observed in 154 of 537 patients (29%), including 16% for
fibrosis staging and 17% for activity grading. Steatosis, an inflammatory profile, and biopsy size were associated with discordance. Discordance was attributable to failure of markers in 13 patients (2.4%) and to biopsy failure in 97 (18%; P <0.001 vs Fibrotest and Actitest), and was nonattributable in 44 patients (8.2%). The most frequent failures attributable to markers were false negatives (1.3%) attributable to

inflammation. The most frequent failures attributable to biopsy were false negatives of activity grading (10.1%) and of fibrosis staging (4.5%), both associated with smaller biopsy size and steatosis. False positives of fibrosis staging (3.5%) were associated with fragmented biopsies. CONCLUSION: In this series, the size of liver biopsy is adequate in only a minor proportion (approximately 14%) of patients with chronic hepatitis
C. When biopsy and marker results are discordant, a reason can be identified in more than two-thirds of cases and, in those cases, biopsy failure is >7 times more common than diagnostic failure of markers.
PMID: 15192028 [PubMed - indexed for MEDLINE]

19: Dig Liver Dis. 2004 Jul;36(7):471-7.
C4BQ0: a genetic marker of familial HCV-related liver cirrhosis.
Pasta L, Pietrosi G, Marrone C, D'Amico G, D'Amico M, Licata A, Misiano G, Madonia S, Mercadante F, Pagliaro L.
Department of Medicine and Pneumology, V Cervello Hospital, Via Trabucco 180, 90146 Palermo, Italy. lindpas@yahoo.it
BACKGROUND AND METHODS: Host may have a role in the evolution of chronic HCV liver disease. We performed two cross-sectional prospective studies to evaluate the prevalence of cirrhosis in first degree relatives of patients with cirrhosis and the role of two major histocompatibility complex class III alleles BF and C4 versus HCV as risk factors for familial clustering. FINDINGS: Ninety-three (18.6%) of 500 patients with cirrhosis had at least one cirrhotic first degree relative as compared to 13 (2.6%) of 500 controls, (OR 7.38; CI 4.21-12.9).
C4BQ0 was significantly more frequent in the 93 cirrhotic patients than in 93 cirrhotic controls without familiarity (Hardy-Weinberg equilibrium: chi2 5.76, P = 0.016) and in 20 families with versus 20 without aggregation of HCV related cirrhosis (29.2% versus 11.3%, P = 0.001); the association C4BQ0-HCV was found almost only in cirrhotic patients with a family history of liver cirrhosis. CONCLUSIONS: Our studies support the value of C4BQ0 as a risk indicator of
familial HCV related cirrhosis.
PMID: 15285527 [PubMed - indexed for MEDLINE]

20: Epidemiol Infect. 2004 Aug;132(4):699-708.
Incidence and risk factors of HCV and HIV infections in a cohort of intravenous drug users in the North and East of France.
Lucidarme D, Bruandet A, Ilef D, Harbonnier J, Jacob C, Decoster A, Delamare C, Cyran C, Van Hoenacker AF, Fremaux D, Josse P, Emmanuelli J, Le Strat Y, Desenclos JC, Filoche B.
Service de Pathologie Digestive, Centre Hospitalier Saint Philibert, rue du Grand But - BP, Lomme cedex, France.
In order to evaluate the incidence and risk factors of infection by hepatitis C virus (HCV) among injecting drug users (IDUs), we conducted a prospective cohort study of HCV- and human immunodeficiency virus (HIV)-negative IDUs in the North and East of France. A total of 231 HCV and HIV IDUs who had injected drugs at least once in their lifetime were followed up every 3 months over a 12-month period. Serum anti-HCV and anti-HIV were tested at inclusion in the study and at the end of the follow-up. Data on injecting practices were collected at inclusion and at each visit. Of the 231 participants included, 165 (71.4%) underwent a final HCV and HIV serum test. The incidence was nil for HIV infection and 9/100 person-years (95% CI 4.6-13.4) for HCV infection. In a multivariable analysis, we found that syringe and cotton sharing were the only independent predictive factors of HCV seroconversion.
Publication Types:
Multicenter Study
PMID: 15310172 [PubMed - indexed for MEDLINE]

21: Gastroenterology. 2004 Aug;127(2):690; author reply 691.
Comment on:
Gastroenterology. 2004 Apr;126(4):1024-9.
Long-term outcome of hepatitis C virus superinfection in HBsAg carriers.
Huo TI, Wu JC, Lee SD.
Publication Types:
Comment
Letter
PMID: 15300612 [PubMed - indexed for MEDLINE]

22: Gut. 2004 Jul;53(7):1057.
Comment on:
Gut. 2003 Nov;52(11):1656-7.
Remarkable difference in the mode of HCV transmission among haemodialysis patients and IVDAs.
Alavian SM, Hajarizadeh B.
Publication Types:
Comment
Letter
PMID: 15194666 [PubMed - indexed for MEDLINE]

23: Health Serv J. 2004 Jul 1;114:28-9.
All at C.
[No authors listed]
Hepatitis C is officially recognised as a major public health problem, but DoH delays in tackling the problem mean it has not been on PCTs' priority lists. A public awareness campaign due to be launched by the DoH is set to change this by encouraging people to come forward for testing. Services will need to invest in IT for improved surveillance and respond to the patient influx this may create.
PMID: 15283375 [PubMed - indexed for MEDLINE]

24: Hepatology. 2004 Jul;40(1):266; author reply 267-8.
Comment on:
Hepatology. 2004 Apr;39(4):1147-71.
A forgotten population with chronic hepatitis C infection: subjects coinfected with hepatitis B virus.
Liu CJ, Chen PJ, Chen DS.
Publication Types:
Comment
Letter
PMID: 15239113 [PubMed - indexed for MEDLINE]

25: Hepatology. 2004 Jul;40(1):266-7; author reply 267-8.
Comment on:
Hepatology. 2004 Apr;39(4):1147-71.
HCV carriers with persistently normal aminotransferase levels.
Puoti C, Bellis L, Castellacci R, Montagnese F, Bergami N, Petrone De Luca P.
Publication Types:
Comment
Letter
PMID: 15239112 [PubMed - indexed for MEDLINE]

26: J Am Coll Surg. 2004 Aug;199(2):179-85.
Portosystemic shunts in children: a 15-year experience.
Botha JF, Campos BD, Grant WJ, Horslen SP, Sudan DL, Shaw BW Jr, Langnas AN.

Division of Transplantation, Department of Surgery, University of Nebraska Medical Center, Omaha, NE 68198-3285, USA.
BACKGROUND: The role of portosystemic shunt (PSS) in children with portal hypertension has changed because of acceptance of liver transplantation and endoscopic hemostasis. We report our experience with PSS, mainly the distal splenorenal shunt, to define its role in the management of variceal bleeding. STUDY DESIGN: From 1987 to 2002, 20 children with variceal bleeding after endoscopic therapy underwent PSS. Patient and database records were reviewed. RESULTS: There were 14 boys and 6 girls; mean age was 11 years (range 3 to 18 years). Seventeen distal splenorenal and three mesocaval venous interposition shunts were performed. There was no operative mortality, 19 patients were alive at a median followup of 31 months (range 4 to 168 months) without evidence of recurrent gastrointestinal bleeding. One patient underwent transplantation 2 years after PSS and 1 patient died of hepatic failure while awaiting transplantation. The cause of portal hypertension was portal vein thrombosis (n = 13), biliary atresia (n = 3), congenital hepatic fibrosis (n = 2), hepatitis C cirrhosis (n = 1), and Budd-Chiari syndrome (n = 1). Eighteen children were Child-Turcotte-Pugh class A and the remaining two were class B. One patient had two episodes of hematemesis after PSS. Two patients had worsening ascites. One patient had mild encephalopathy and one patient had shunt stenosis requiring angioplasty. CONCLUSIONS: PSS is a safe and durable therapy for pediatric patients with portal hypertension. Liver transplantation should be reserved for children with poor synthetic function associated with variceal bleeding. PSS may also serve as a bridge to transplantation in patients with preserved hepatic function. PSS, in particular the distal splenorenal shunt, has produced excellent results. This experience challenges the need for alternative forms of portal decompression.
PMID: 15275870 [PubMed - indexed for MEDLINE]

27: J Clin Invest. 2004 Aug;114(4):450-62.

Progress on new vaccine strategies against chronic viral infections.
Berzofsky JA, Ahlers JD, Janik J, Morris J, Oh S, Terabe M, Belyakov IM.
Molecular Immunogenetics and Vaccine Research Section, Vaccine Branch, The Center for Cancer Research, National Cancer Institute/NIH, 10 Center Drive, Bethesda, MD 20892, USA. berzofsk@helix.nih.gov
Among the most cost-effective strategies for preventing viral infections, vaccines have proven effective primarily against viruses causing acute, self-limited infections. For these it has been sufficient for the vaccine to mimic the natural virus. However, viruses causing chronic infection do not elicit an immune response sufficient to clear the infection and, as a result, vaccines for these viruses must elicit more effective responses—quantitative and qualitative--than does the natural virus. Here we examine the immunologic and virologic basis for vaccines against three such viruses, HIV, hepatitis C virus, and human papillomavirus, and review progress in clinical trials to date. We also explore novel strategies for increasing the immunogenicity and efficacy of vaccines.
Publication Types:
Review
Review, Tutorial
PMID: 15314679 [PubMed - indexed for MEDLINE]

28: J Clin Invest. 2004 Jul;114(2):250-9.
Hepatitis C virus mutation affects proteasomal epitope processing.
Seifert U, Liermann H, Racanelli V, Halenius A, Wiese M, Wedemeyer H, Ruppert T, Rispeter K, Henklein P, Sijts A, Hengel H, Kloetzel PM, Rehermann B.
Institute of Biochemistry, Charite, Humboldt University, Berlin, Germany.

The high incidence of hepatitis C virus (HCV) persistence raises the question of how HCV interferes with host immune responses. Studying a single-source HCV outbreak, we identified an HCV mutation that impaired correct carboxyterminal cleavage of an immunodominant HLA-A2-restricted CD8 cell epitope that is frequently recognized by recovered patients. The mutation, a conservative HCV nonstructural protein 3 (NS3) tyrosine to phenylalanine substitution, was absent in 54 clones of the infectious source, but present in 15/21 (71%)
HLA-A2-positive and in 11/24 (46%) HLA-A2-negative patients with chronic hepatitis C. In order to analyze whether the mutation affected the processing of the HLA-A2-restricted CD8 cell epitope, mutant and wild-type NS3 polypeptides were digested in vitro with 20S constitutive proteasomes and with immunoproteasomes. The presence of the mutation resulted in impaired
carboxyterminal cleavage of the epitope. In order to analyze whether impaired epitope processing affected T cell priming in vivo, HLA-A2-transgenic mice were infected with vaccinia viruses encoding either wild-type or mutant HCV NS3. The mutant induced fewer epitope-specific, IFN-gamma;-producing and fewer tetramer(+) cells than the wild type. These data demonstrate how a conservative mutation in the flanking region of an HCV epitope impairs the induction of epitope-specific CD8(+) T cells and reveal a mechanism that may contribute to
viral sequence evolution in infected patients.
PMID: 15254592 [PubMed - indexed for MEDLINE]

29: J Immunol. 2004 Jul 1;173(1):446-55.
Incomplete humoral immunity against hepatitis C virus is linked with distinct recognition of putative multiple receptors by E2 envelope glycoprotein.
Heo TH, Chang JH, Lee JW, Foung SK, Dubuisson J, Kang CY.
Laboratory of Immunology, Institute of Pharmaceutical Sciences, College of Pharmacy, Seoul National University, Shillim-Dong, Kwanak-Gu, Seoul 151-742, Korea.
Little is known about the role of the humoral immune response to hepatitis C virus (HCV). This study provides molecular evidence for the mechanism by which neutralizing Abs from the sera of chronic HCV patients have lower inhibitory activities against the binding of HCV E2 envelope protein to human hepatoma cell lines than to a lymphoma cell line. E2 binds to several putative receptors, specifically human CD81; human scavenger receptor, class B, type 1; and heparan
sulfate. We have shown that E2 binds to target cells via these receptors in a noncompetitive manner. Thus, incomplete inhibition of one of the receptors leads to only a partial E2 blockade and, possibly, evasion of the host immune response. We demonstrated that the difference in and reduction of inhibition was closely related to impaired blockade of E2 binding to scavenger receptor, class B, type 1, and heparan sulfate. We have also shown that soluble E2 protein binds to multiple soluble receptors via separate binding domains on E2, providing further evidence for the distinct recognition of multiple cellular receptors by E2. This report suggests a novel finding that biased humoral immune responses to HCV E2 might provide an alternative mechanism for viral escape without the involvement of mutation. Additionally, our data give crucial consideration to the development of HCV vaccines that stimulate protective humoral immune responses.
PMID: 15210804 [PubMed - indexed for MEDLINE]

30: J Infect. 2004 Aug;49(2):165-8.
The diagnosis of acute hepatitis C virus infection during seroconversion: an important therapeutic opportunity.
McMullan R, Coyle PV, Feeney S, McCaughey C, Gregg W, McDougall N.
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Publication Types:

Case Reports
PMID: 15236925 [PubMed - indexed for MEDLINE]

31: J Infect Dis. 2004 Aug 15;190(4):819-25. Epub 2004 Jul 16.
Iron regulates hepatitis C virus translation via stimulation of expression of translation initiation factor 3.
Theurl I, Zoller H, Obrist P, Datz C, Bachmann F, Elliott RM, Weiss G.
Department of Internal Medicine, University of Innsbruck, Innsbruck, Austria.
BACKGROUND: Although the response to treatment with interferon- alpha in individuals with chronic hepatitis C virus (HCV) infection is negatively associated with increased liver iron stores, the underlying mechanisms at work have remained elusive to date. The translation initiation factor 3 (eIF3) is essential for HCV translation, and thus the effects that iron perturbations have on eIF3 expression and HCV translation were studied here. METHODS: eIF3 expression was analyzed by TaqMan polymerase chain reaction, Northern and Western blot analysis of HepG2 cells, and liver biopsies. Functional effects of iron on HCV mRNA translation were estimated by use of transient transfection experiments with bicistronic vectors. RESULTS: Iron treatment of HepG2 cells increased eIF3 mRNA and protein expression, whereas iron chelation reduced it. Accordingly, iron-dependent stimulation of eIF3 specifically induced the expression of reporter genes under the control of regulatory HCV mRNA stem-loop structures. Moreover, a positive association between liver iron levels, eIF3 expression, and HCV expression was found when liver-biopsy samples from HCV-infected patients were analyzed. CONCLUSION: Iron promotes the translation of HCV by stimulating the expression of eIF3, which may be one reason for the negative association between liver iron overload and HCV infection. Modulation of the affinity of eIF3 to bind to HCV mRNA may be a promising target for the treatment of chronic HCV infection.
PMID: 15272411 [PubMed - indexed for MEDLINE]

32: J Infect Dis. 2004 Aug 1;190(3):651-2.
Comment on:
J Infect Dis. 2004 Jan 1;189(1):7-14.
Seronegative hepatitis C virus infection, not just RNA detection.
Stapleton JT, Schmidt WN, Katz L.
Publication Types:
Comment
Letter
PMID: 15243946 [PubMed - indexed for MEDLINE]

33: J Infect Dis. 2004 Aug 1;190(3):511-4. Epub 2004 Jul 07.
Complexity and diversity of hepatitis C virus RNA in african americans and whites: analysis of the envelope-coding domain.
Keenan ED, Rouster SD, Shire NJ, Horn PS, Sherman KE.
Division of Digestive Diseases, University of Cincinnati College of Medicine, Cincinnati, Ohio 45267-0595, USA.
African Americans infected with hepatitis C virus (HCV) are less responsive than whites to interferon-based therapy. HCV quasi species have been implicated. Quasi-species complexity and diversity were evaluated in matched African American and white individuals. Complexity and diversity in the first hypervariable region were similar in the 2 groups. Both the frequency of nonsynonymous amino acid substitutions and the mean ratio of nonsynonymous mutations to synonymous mutations were greater in clones derived from white patients. Racial differences in amino acid usage at otherwise conserved positions were observed. Differences in amino acid representation at key positions are suggestive of immunologic and functional selection along racial lines.

PMID: 15243925 [PubMed - indexed for MEDLINE]

34: J Virol. 2004 Sep;78(17):9030-40.
Inhibition of hepatitis C virus-like particle binding to target cells by antiviral antibodies in acute and chronic hepatitis C.
Steinmann D, Barth H, Gissler B, Schurmann P, Adah MI, Gerlach JT, Pape GR, Depla E, Jacobs D, Maertens G, Patel AH, Inchauspe G, Liang TJ, Blum HE, Baumert TF.
Department of Medicine II, University of Freiburg, Freiburg, Germany.
Hepatitis C virus (HCV) is a leading cause of chronic viral hepatitis worldwide. The study of antibody-mediated virus neutralization has been hampered by the lack of an efficient and high-throughput cell culture system for the study of virus neutralization. The HCV structural proteins have been shown to assemble into noninfectious HCV-like particles (HCV-LPs). Similar to serum-derived virions, HCV-LPs bind and enter human hepatocytes and hepatoma cell lines. In
this study, we developed an HCV-LP-based model system for a systematic functional analysis of antiviral antibodies from patients with acute or chronic hepatitis C. We demonstrate that cellular HCV-LP binding was specifically inhibited by antiviral antibodies from patients with acute or chronic hepatitis C in a dose-dependent manner. Using a library of homologous overlapping envelope peptides covering the entire HCV envelope, we identified an epitope in the N-terminal E2 region (SQKIQLVNTNGSWHI; amino acid positions 408 to 422) as one target of human antiviral antibodies inhibiting cellular particle binding. Using a large panel of serum samples from patients with acute and chronic hepatitis C, we demonstrated that the presence of antibodies with inhibition of binding activity was not associated with viral clearance. In conclusion, antibody-mediated inhibition of cellular HCV-LP binding represents a convenient
system for the functional characterization of human anti-HCV antibodies, allowing the mapping of envelope neutralization epitopes targeted by naturally occurring antiviral antibodies.
PMID: 15308699 [PubMed - indexed for MEDLINE]

35: N Engl J Med. 2004 Aug 19;351(8):831-2; author reply 831-2.
Comment on:
N Engl J Med. 2004 May 27;350(22):2265-71.
Treatment of chronic hepatitis C in blacks and non-Hispanic whites.
Moriguchi H, Sato C.
Publication Types:
Comment
Letter
PMID: 15320315 [PubMed - indexed for MEDLINE]

36: N Engl J Med. 2004 Aug 19;351(8):831-2; author reply 831-2.
Comment on:
N Engl J Med. 2004 May 27;350(22):2265-71.
Treatment of chronic hepatitis C in blacks and non-Hispanic whites.
Aigner ES.
Publication Types:
Comment
Letter
PMID: 15317901 [PubMed - indexed for MEDLINE]

37: N Engl J Med. 2004 Aug 19;351(8):760-8.
Comment in:
N Engl J Med. 2004 Aug 19;351(8):819-22.
Detection of HIV-1 and HCV infections among antibody-negative blood donors by nucleic acid-amplification testing.

Stramer SL, Glynn SA, Kleinman SH, Strong DM, Sally C, Wright DJ, Dodd RY, Busch MP; National Heart, Lung, and Blood Institute Nucleic Acid Test Study Group.
American Red Cross, Gaithersburg, Md, USA. stramers@usa.redcross.org
BACKGROUND: Testing of blood donors for human immunodeficiency virus type 1 (HIV-1) and hepatitis C virus (HCV) RNA by means of nucleic acid amplification was introduced in the United States as an investigational screening test in mid-1999 to identify donations made during the window period before seroconversion. METHODS: We analyzed all antibody-nonreactive donations that were confirmed to be positive for HIV-1 and HCV RNA on nucleic acid-amplification testing of "minipools" (pools of 16 to 24 donations) by the main blood-collection programs in the United States during the first three years of nucleic acid screening. RESULTS: Among 37,164,054 units screened, 12 were confirmed to be positive for HIV-1 RNA--or 1 in 3.1 million donations--only 2 of which were detected by HIV-1 p24 antigen testing. For HCV, of 39,721,404 units screened, 170 were confirmed to be positive for HCV RNA, or 1 in 230,000
donations (or 1 in 270,000 on the basis of 139 donations confirmed to be positive for HCV RNA with the use of a more sensitive HCV-antibody test). The respective rates of positive HCV and HIV-1 nucleic acid-amplification tests were 3.3 and 4.1 times as high among first-time donors as among donors who gave blood repeatedly. Follow-up studies of 67 HCV RNA-positive donors demonstrated that seroconversion occurred a median of 35 days after the index donation, followed by a low rate of resolution of viremia; three cases of long-term immunologically
silent HCV infection were documented. CONCLUSIONS: Minipool nucleic acid-amplification testing has helped prevent the transmission of approximately 5 HIV-1 infections and 56 HCV infections annually and has reduced the residual risk of transfusion-transmitted HIV-1 and HCV to approximately 1 in 2 million blood units.

PMID: 15317889 [PubMed - indexed for MEDLINE]

38: N Engl J Med. 2004 Aug 19;351(8):751-9.
Probability of viremia with HBV, HCV, HIV, and HTLV among tissue donors in the United States.
Zou S, Dodd RY, Stramer SL, Strong DM; Tissue Safety Study Group.
Transmissible Diseases Department, American Red Cross, Rockville, Md 20855, USA. zous@usa.redcross.org
BACKGROUND: Tissue-banking organizations in the United States have introduced various review and testing procedures to reduce the risk of the transmission of viral infections from tissue grafts. We estimated the current probability of undetected viremia with hepatitis B virus (HBV), hepatitis C virus (HCV), human immunodeficiency virus (HIV), and human T-lymphotropic virus (HTLV) among tissue donors. METHODS: Rates of prevalence of hepatitis B surface antigen (HBsAg) and antibodies against HIV (anti-HIV), HCV (anti-HCV), and HTLV (anti-HTLV) were determined among 11,391 donors to five tissue banks in the United States. The data were compared with those of first-time blood donors in order to generate estimated incidence rates among tissue donors. The probability of viremia undetected by screening at the time of tissue donation was estimated on the basis of the incidence estimates and the window periods for these infections. RESULTS: The prevalence of confirmed positive tests among tissue donors was 0.093 percent for anti-HIV, 0.229 percent for HBsAg, 1.091 percent for anti-HCV, and 0.068 percent for anti-HTLV. The incidence rates were estimated to be 30.118, 18.325, 12.380, and 5.586 per 100,000 person-years, respectively. The estimated probability of viremia at the time of donation was 1 in 55,000, 1 in 34,000, 1 in 42,000, and 1 in 128,000, respectively. CONCLUSIONS: The prevalence rates of HBV, HCV, HIV, and HTLV infections are lower among tissue donors than in the general population. However, the estimated probability of undetected viremia at the time of tissue

donation is higher among tissue donors than among first-time blood donors. The addition of nucleic acid-amplification testing to
the screening of tissue donors should reduce the risk of these infections among recipients of donated tissues. Copyright 2004 Massachusetts Medical Society
PMID: 15317888 [PubMed - indexed for MEDLINE]

39: Pediatr Blood Cancer. 2004 Aug;43(2):185.
Use of PEG-interferon alfa-2a plus ribavirin as treatment for chronic HCV hepatitis in a child cured of ALL.
Lo Nigro L, La Spina M, Mirabile E, Pisana P, Schiliro G, Guardo P.
Publication Types:
Case Reports
Letter
PMID: 15236293 [PubMed - indexed for MEDLINE]

40: Psychosomatics. 2004 Jul-Aug;45(4):281-6.
Contribution of functional neuroimaging to understanding neuropsychiatric side effects of interferon in hepatitis C.
Matthews SC, Paulus MP, Dimsdale JE.
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Patients with hepatitis C who are treated with interferon may develop neuropsychiatric symptoms, including fatigue and depression. The authors discuss the potential use of functional neuroimaging in the identification and treatment of these patients. The authors provide an overview of functional neuroimaging studies of fatigue and depressive symptoms in various medical and psychiatric conditions and suggest future directions for research that may increase
understanding of the specific neural substrates of neuropsychiatric side effects associated with hepatitis C and interferon treatment. This knowledge may help consultation-liaison psychiatrists identify patients at high risk for developing side effects related to hepatitis C and interferon, which would allow for implementation of validated strategies for prophylactic treatment of these
patients.
Publication Types:
Review
Review, Tutorial
PMID: 15232040 [PubMed - indexed for MEDLINE]

41: RNA. 2004 Aug;10(8):1277-90. Epub 2004 Jul 09.
Isolation of specific and high-affinity RNA aptamers against NS3 helicase domain of hepatitis C virus.
Hwang B, Cho JS, Yeo HJ, Kim JH, Chung KM, Han K, Jang SK, Lee SW.
Department of Molecular Biology, Institute of Nanosensor and Biotechnology, Dankook University, San8 Hannam-Dong, Yongsan-Gu, Seoul 140-714, Korea.
Hepatitis C virus (HCV)-encoded nonstructural protein 3 (NS3) possesses protease, NTPase, and helicase activities, which are considered essential for viral proliferation. Thus, HCV NS3 is a good putative therapeutic target protein for the development of anti-HCV agents. In this study, we isolated specific RNA aptamers to the helicase domain of HCV NS3 from a combinatorial RNA library with 40-nucleotide random sequences using in vitro selection techniques. The isolated RNAs were observed to very avidly bind the HCV helicase with an apparent Kd of
990 pM in contrast to original pool RNAs with a Kd of >1 microM. These RNA ligands appear to impede binding of substrate RNA to the HCV helicase and can act as potent decoys to competitively inhibit helicase activity with high efficiency compared with poly(U) or tRNA. The minimal binding domain of the ligands was determined to

evaluate the structural features of the isolated RNA molecules. Interestingly, part of binding motif of the RNA aptamers consists of
similar secondary structure to the 3'-end of HCV negative-strand RNA. Moreover, intracellular NS3 protein can be specifically detected in situ with the RNA aptamers, indicating that the selected RNAs are very specific to the HCV NS3 helicase. Furthermore, the RNA aptamers partially inhibited RNA synthesis of HCV subgenomic replicon in Huh-7 hepatoma cell lines. These results suggest that the RNA aptamers selected in vitro could be useful not only as therapeutic and diagnostic agents of HCV infection but also as a powerful tool for the study of
HCV helicase mechanism.
PMID: 15247433 [PubMed - indexed for MEDLINE]

42: Science. 2004 Aug 6;305(5685):872-4.
Comment in:
Science. 2004 Aug 6;305(5685):786-7.
HLA and NK cell inhibitory receptor genes in resolving hepatitis C virus infection.
Khakoo SI, Thio CL, Martin MP, Brooks CR, Gao X, Astemborski J, Cheng J, Goedert JJ, Vlahov D, Hilgartner M, Cox S, Little AM, Alexander GJ, Cramp ME, O'Brien SJ, Rosenberg WM, Thomas DL, Carrington M.
Liver Group, Division of Infection, Inflammation, and Repair, Southampton University, Southampton 5016 6YD, UK. sik@soton.ac.uk
Natural killer (NK) cells provide a central defense against viral infection by using inhibitory and activation receptors for major histocompatibility complex class I molecules as a means of controlling their activity. We show that genes encoding the inhibitory NK cell receptor KIR2DL3 and its human leukocyte antigen C group 1 (HLA-C1) ligand directly influence resolution of hepatitis C virus (HCV) infection. This effect was observed in Caucasians and African Americans with expected low infectious doses of HCV but not in those with high-dose
exposure, in whom the innate immune response is likely overwhelmed. The data strongly suggest that inhibitory NK cell interactions are important in determining antiviral immunity and that diminished inhibitory responses confer protection against HCV.
Publication Types:
Multicenter Study
PMID: 15297676 [PubMed - indexed for MEDLINE]

43: Science. 2004 Aug 6;305(5685):786-7.
Comment on:
Science. 2004 Aug 6;305(5685):872-4.
Immunology. NK cells lose their inhibition.
Parham P.
Department of Structural Biology, Stanford University School of Medicine, Stanford, CA 94305, USA. peropa@stanford.edu
Publication Types:
Comment
PMID: 15297654 [PubMed - indexed for MEDLINE]

44: Sex Transm Infect. 2004 Aug;80(4):326-7.
Increased numbers of acute hepatitis C infections in HIV positive homosexual men; is sexual transmission feeding the increase?
Browne R, Asboe D, Gilleece Y, Atkins M, Mandalia S, Gazzard B, Nelson M.
Publication Types:
Letter
PMID: 15295139 [PubMed - indexed for MEDLINE]

45: World J Gastroenterol. 2004 Aug 15;10(16):2439-43.

Simultaneous detection of HBV and HCV by multiplex PCR normalization.
Wang N, Gao XQ, Han JX.
Shandong Medicinal Biotechnological Center, Shandong Academy of Medical Sciences, Key Laboratory for Biotechdrugs, Ministry of Public Health, Jinan 250062, Shandong Province, China.
AIM: To design and establish a method of multiplex PCR normalization for simultaneously detecting HBV and HCV. METHODS: Two pairs of primers with a 20 bp joint sequence were used to amplify the target genes of HBV and HCV by two rounds of amplification. After the two rounds of amplification all the products had the joint sequence. Then the joint sequence was used as primers to finish the last amplification. Finally multiplex PCR was normalized to a single PCR system to eliminate multiplex factor interference. Four kinds of nucleic acid extraction methods were compared and screened. A multiplex PCR normalization method was established and optimized by orthogonal design of 6 key factors. Then twenty serum samples were detected to evaluate the validity and authenticity of this method. RESULTS: The sensitivity, specificity, diagnostic index and efficiency were 83.3%, 70%, 153.3% and 72.2%, respectively for both HBsAg and anti-HCV positive patients, and were 78.6%, 80%, 258.6% and 79.2%, respectively
for HBsAg positive patients, and were 75%, 90%, 165% and 83.3%, respectively for anti-HCV positive patients. CONCLUSION: The multiplex PCR normalization method shows a broad prospect in simultaneous amplification of multiple genes of different sources. It is practical, correct and authentic, and can be used to prevent and control HBV and HCV.
PMID: 15285039 [PubMed - indexed for MEDLINE]

46: World J Gastroenterol. 2004 Aug 15;10(16):2409-11.
Assessment of correlation between serum titers of hepatitis C virus and severity of liver disease.
Anand BS, Velez M.
Digestive Diseases Section, VA Medical Center, 2002 Holcombe Blvd. Houston, Texas 77030, USA. ana0@flash.net
AIM: The significance of hepatitis C virus (HCV) serum titers has been examined in several clinical situations. There is much evidence that patients with a lower viral load have better response rates to anti-viral therapy compared to those with higher levels. Moreover, a direct association has been observed between serum titers of HCV and transmission rates of the virus. The aim of the present study was to determine if there was any correlation between HCV viral load and the severity of liver disease. METHODS: Fifty patients with HCV infection were included in the study. These comprised of 34 subjects with a history of alcohol use and 16 non-alcoholics. Quantitative serum HCV RNA assay was carried out using the branched DNA (bDNA) technique. Linear regression analysis was performed between serum viral titers and liver tests. In addition, for the purpose of comparison, the subjects were divided into two groups: those with low viral titers (< or = 50 genome mEq/mL) and high titers (> 50 mEq/mL). RESULTS: All subjects were men, with a mean +/- SD age of 47 +/- 7.8 years. The mean HCV RNA level in the blood was 76.3 x 10(5) +/- 109.1 genomeequivalents/mL. There was no correlation between HCV RNA levels and age of the patients (r = 0.181), and the history or amount (g/d) of alcohol consumption (r = 0.07). Furthermore, no correlation was observed between serum HCV RNA levels and the severity of liver disease as judged by the values of serum albumin (r = 0.175), bilirubin (r = 0.217), ALT (r = 0.06) and AST (r = 0.004) levels. Similarly, no significant difference was observed between patients with low viral titers and high titers with respect to any of the parameters. CONCLUSION: Our results indicate that the severity of liver disease is independent of serum levels of hepatitis C virus. These findings are important since they have a direct impact on the current debate regarding the role of direct cytopathic effect of hepatitis C virus versus immune-mediated injury in the pathogenesis of

HCV-related liver damage.
PMID: 15285030 [PubMed - indexed for MEDLINE]

47: World J Gastroenterol. 2004 Aug 15;10(16):2402-5.
Prevalence of a newly identified SEN virus in China.
Mu SJ, Du J, Zhan LS, Wang HP, Chen R, Wang QL, Zhao WM.
School of Life Sciences and Technology, Xi'an Jiaotong University, Xi'an 710049, Shaanxi Province, China. musj@nwblood.com
AIM: To establish nested-PCR methods for the detection of SENV-D and SENV-H and to investigate the epidemiology of SEN virus in China. METHODS: According to published gene sequences, primers from the conserved region were designed. Then, 135 samples from healthy voluntary blood donors and 242 samples from patients with various forms of liver disease were detected by nested-PCR of SENV-D/H. Some PCR products were cloned and sequenced. RESULTS: By sequencing, the specificity of genotype-specific PCR was confirmed. SENV-D/H DNA was detected in 31% of the blood donors, which was higher than those in America and Italy (2%), and in Japan and Taiwan (15-20%). The prevalence of SENV-D/H viremia was significantly higher in patients with hepatitis B and hepatitis C than in blood donors (59-85% vs 31%, P<0.05). The prevalence among patients with non-A-E hepatitis was significantly higher than among blood donors (68% vs 31%, P<0.01), and equivalent to that among patients with hepatitis B and C. CONCLUSION: Nested-PCR with genotype-specific primers could serve as a useful SENV screening assay. SENV has the same transmission modes as HBV and HCV. The high prevalence in patients with non-A-E hepatitis may attribute to the transmission modes, and SENV may not serve as the causative agents.
PMID: 15285028 [PubMed - indexed for MEDLINE]

48: World J Gastroenterol. 2004 Aug 15;10(16):2330-3.
Association of interleukin-12 p40 gene 3'-untranslated region polymorphism and outcome of HCV infection.
Yin LM, Zhu WF, Wei L, Xu XY, Sun DG, Wang YB, Fan WM, Yu M, Tian XL, Wang QX, Gao Y, Zhuang H.
Department of Microbiology, School of Basic Medical Sciences, Peking University, Beijing 100083, China.
AIM: To investigate the effect of interleukin-12 p40 gene (IL12B) 3'-untranslated region polymorphism on the outcome of HCV infection. METHODS: A total of 133 patients who had been infected with HCV for 12-25 (18.2+/-3.8) years, were enrolled in this study. Liver biochemical tests were performed with an automated analyzer and HCV RNA was detected by fluorogenic quantitative polymerase chain reaction. B-mode ultrasound was used for liver examination. Polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) was used for the detection of IL12B (1188A/C) polymorphism. RESULTS: Self-limited infection was associated with AC genotype (OR = 3.48; P = 0.001) and persistent infection was associated with AA genotype (OR = 0.34; P = 0.014) at site 1188 of IL12B. In patients with persistent HCV infection, no significant differences were found regarding the age, gender, duration of infection and biochemical characteristics (P>0.05). According to B-mode ultrasound imaging and clinical diagnosis, patients with persistent infection were divided into groups based on the severity of infection. No significant differences were found in the frequency of IL-12 genotype (1188A/C) between different groups (P>0.05). CONCLUSION: The polymorphism of IL12B (1188A/C) appears to have some influence on the outcome of HCV infection.
PMID: 15285014 [PubMed - indexed for MEDLINE]

49: World J Gastroenterol. 2004 Jul 1;10(13):1893-7.

SEN virus does not affect treatment response in hepatitis C virus coinfected patients but SEN virus response depends on SEN virus DNA concentration.

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AIM: To clarify the effect of SEN virus (SENV) infection on a combination therapy including interferon alfa (IFN-alpha) or pegylated-IFN with ribavirin in patients with chronic hepatitis and the effect of a combination therapy on SENV. METHODS: SENV DNA was determined by polymerase chain reaction in serum samples from 95 patients with chronic hepatitis C. Quantitative analysis was done for SENV H DNA. RESULTS: Twenty-one (22%) of 95 patients were positive for SENV DNA. There was no difference in clinical and biochemical parameters between patients with HCV infection alone and coinfected patients. The sustained response rate for HCV clearance after combination therapy did not differ between patients with SENV (52%) and without SENV (50%, n.s.). SENV DNA was undetectable in 76% of the initially SENV positive patients at the end of follow-up. SENV H response to combination therapy was significantly correlated with SENV DNA level (P=0.05). CONCLUSION: SENV infection had no influence on the HCV sustained response rate to the combination therapy. Response rate of SENV to the combination therapy depends on SENV DNA level.

PMID: 15222031 [PubMed - indexed for MEDLINE]